

We claim:

- 1 1. A method of making a microstructure in a glass or plastic surface by hot-
2 forming technology, said method comprising the steps of:
 - 3 a) providing a forming tool comprising a base body (1), said base body (1)
4 comprising an at least partially porous base material with an open pore structure;
5 b) structuring a surface of a forming tool according to a negative of the
6 microstructure to be produced in the substrate;
7 c) pressing the forming tool surface structured during the structuring of
8 step b) into a viscous glass or plastic substrate;
9 d) during the pressing of step c), generating an under pressure that acts
10 on the open pore structure of the base body (1) in order to draw glass or plastic
11 material to the forming tool surface and thus help form the microstructure;
12 e) after the microstructure has been formed in the substrate in steps c)
13 and d), removing the forming tool from the viscous glass or plastic substrate; and
14 f) during the removing of step e), generating an overpressure that acts on
15 the open pore structure of the base body to assist in the removing.

- 1 2. The method as defined in claim 1, further comprising melting glass or plastic
2 material to form a melt and taking the viscous glass or plastic substrate from the
3 melt.

1 3. The method as defined in claim 1, further comprising providing a solid glass or
2 plastic substrate, heating the forming tool locally immediately prior to the
3 formation of the microstructure and applying the forming tool heated during the
4 heating to the solid glass or plastic substrate in a region to be structured to
5 plasticize the substrate material and form the viscous glass or plastic substrate.

1 4. A forming tool for making a microstructure in a glass or plastic surface by hot-
2 forming technology, said forming tool comprising a base body (1), an operative
3 layer (2) applied to a surface on one side of the base body and means (4,5) for
4 supplying or withdrawing air from another surface on another side of the base
5 body (1) opposite from the one side on which the operative layer (2) is applied,
6 wherein said base body (1) comprises a porous base material with an
7 open pore structure and said operative layer (2) comprises a gas-impermeable
8 material structured according to a negative of the microstructure to be produced
9 by the forming tool in order to form depressions or grooves (11) that extend
10 through the operative layer (2) to the base material with the open pore structure.

1 5. The forming tool as defined in claim 4, wherein said base body (1) consists
2 entirely of said porous base material with the open pore structure.

1 6. The forming tool as defined in claim 5, wherein said base body (1) has gas-
2 impermeable side walls (15).

1 7. The forming tool as defined in claim 4, wherein only a portion (1b) of said base
2 body (1) next to said operative layer (2) consists of said porous base material
3 with the open pore structure, while a remaining portion (1a) of the base body (1)
4 is gas-impermeable.

1 8. The forming tool as defined in claim 7, wherein said portion (1b) of the base
2 body (1) next to said operative layer (2) has gas-impermeable side walls (15).

1 9. The forming tool as defined in claim 4, consisting of a pressing roller or a press
2 tool.